Empedocles et al. Docket No.: IVGN 618.4 CON Serial No. 10/807,616

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, or claims in the application.

Listing of Claims:

1. (Canceled)

2. (Currently amended): The method of claim [[1]] 10, wherein the labels

comprise semiconductor nanocrystals.

3.-9. (Canceled)

 (Currently amended): A method for identifying a plurality of identifiable elements. in the method comprising: energizing a plurality of labels so that a first

marker of each label generates a first signal with a first wavelength peak at least some of the labels comprising multiple-signal label having a second marker

generating a second signal with a second wavelength peak; measuring the first wavelength peaks, wherein each label comprises at least one reference marker,

wherein the reference marker generates a reference signal that is used for

calibrating the spectrum for the label;

for each multiple-signal label, measuring the second wavelength peak at least a predetermined minimum wavelength separation for the associated first

peak: and

identifying the labels in response to the measured peaks.

11. (Previously presented): The method of claim 10, wherein each predetermined minimum wavelenoth separation is at least as large as a full width

half maximum (FWHM) of at least one of the associated first peak and the

associated second peak.

12.-14. (Canceled)

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15. (New): The method of claim 10, wherein the labels are associated with polymeric beads.

- 16. (New): The method of claim 15, wherein the polymeric beads comprise a polymer selected from polystyrene, polyacrylics, polysiloxanes, polymeric silica, latexes, dextran polymers, and epoxies.
- 17. (New): The method of claim 2, wherein the semiconductor nanocrystals comprise CdS, CdSe, CdTe, ZnTe, InP, InAs, InSb, PbS, PbSe or a ternary or quaternary mixture or alloy thereof.
- 18. (New): The method of claim 2, wherein the semiconductor nanocrystal further comprises an overcoating layer.
- 19. (New): The method of claim 17, wherein the overcoating layer is or comprises ZnS, GaN, MgS, MgSe, MgTe, CdS, CdSe or a ternary or quaternary mixture or alloy thereof.
- (New): The method of claim 10, wherein the identifiable elements are cells or biological matter.
- 21. (New): The method of claim 10, wherein the labels comprise a fluorescent material.